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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/667,314 | 09/23/2003 | Keisuke Matsuo | 03500.017600 | 9274 |

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| EXAMINER | |
|---|---|
| VO, ANH T N | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2861 | |

DATE MAILED: 05/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/667,314 | MATSUO ET AL. | |
| | Examiner | Art Unit | |
| | Anh T.N. Vo | 2861 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Double patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7, 12-27, 32-33, 35-49, 51, 54-61 of US Patent number 6,361,158. Although the conflicting claims are not identical, they are not patentably distinct from each other because they claim an ink container for containing ink to be supplied to an ink jet head and engaging with a tank holder comprising:

- an ink jet head;
- an ink tank;
- an ink supply port;
- a tank holder;
- a lever;
- a fixing member having first and second engagement portions
- a fiber member; and
- an air vent.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

*CLAIM REJECTIONS*

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 are rejected under 35 USC 102 (b) as being anticipated by Inoue et al. (US Pat. 5,619,237).

Inoue et al. disclose in Figures 5-6, 14-16, 20, 23-24, 28a-28b, 45 and 62-63 an ink jet recording apparatus comprising:

- a liquid discharge head (150);
- a tank mounting portion (160) to which a liquid tank (130, 140) for accommodating liquid to be supplied to the liquid discharge head (150) is detachably mounted (Figure20);

- a terminal (153) for transmitting a recording signal to said liquid discharge head (150);
- a liquid supplying tube (160d, 160d') which is placed on the mounting surface of said mounting portion (160) on which said liquid tank (130, 140) is mounted and supplies the liquid supplied from said liquid tank (130, 140) to said liquid discharge head (150) (Figures 20 and 23-24);
- a peripheral wall which is provided upright around said mounting surface of said tank mounting portion (160) and forms a space for accommodating said liquid tank (130, 140) (Figure 20);
- a first engagement portion (160i, 160i') which is provided at one side wall of the peripheral wall and engaged with a first engagement protrusion (132d, 142d) provided at a part of said liquid tank (130, 140) (Figures 20 and 23-24);
- a second engagement portion (167a, 167a') which is provided at the other side wall of said peripheral wall opposing said one side wall and engaged with a second engagement protrusion (132e, 132e') provided at the other portion of said liquid tank (130, 140), wherein the height of at least said one side wall of said peripheral wall is lower than the height of said liquid tank (130) to be mounted, and when said liquid tank is mounted to the tank mounting portion (160), at least one side surface of said peripheral wall abuts the side surface of said liquid tank (Figures 20 and 23-24);
- wherein the height of the engagement surface of said second engagement portion (132e) with which said liquid tank (130) engages from said mounting surface is higher than that in the case of said first engagement portion (132d) (Figure 23);
- wherein said tank mounting portion (160) is divided into two areas so that a liquid tank (130, 140) accommodating a black ink is mounted to one area and a liquid tank accommodating three color inks is loaded onto the other area, the area of said tank mounting portion on which the liquid tank accommodating a black ink is mounted is provided with a liquid supplying pipe (160d, 160d') for black ink and the area of said tank mounting portion on which the liquid tank accommodating three color inks is mounted is provided with three liquid supplying tubes for the respective colors (Figures 20 and 23-24);
- wherein the lower surface side of said first engagement protrusion (132d) facing the bottom surface side is formed in an inclined surface which is inclined upward from its proximal end

toward its distal end (Figure 23);

- wherein when said liquid tank is removed from said tank mounting portion, said one side surface of said liquid tank abuts the upper end of said one side wall of said tank mounting portion , said one side surface of said liquid tank is supported by said upper end, and a rotational operation is utilized (Figures 31a-31b);

- a container main body (132, 142) for accommodating liquid;

- an air communication portion (131a) for communicating the inside of said container main body (132) with air;

- a supplying port (132b) which is provided on the bottom surface of said container main body (132) in the state the liquid tank is mounted to said tank holder (160) and supplies the liquid to said liquid discharge head (150) (Figure 23);

- a lever portion (132a, 142a) with a second engagement protrusion (132e, 142e) which is engaged with the second engagement portion provided (167a, 167a') at the other side wall of said peripheral wall opposing said one side wall and provided so as to be elastically displaced, wherein the protruding amount of said first engagement protrusion from one side surface of said liquid tank is smaller than the distance from the bottom surface of said container main body to said first engagement protrusion (Figures 23-24);

- wherein when said container is removed from said tank holder, said lever portion is elastically displaced toward the container side (see arrows close by an element 30), so that the engagement state of said second engagement portion is released (Figures 31a-31b);

- said lever portion is provided with an operating portion which is operated at the time of removing said container from said tank holder (Figures 31a-31b);

- wherein in the state where said container (130) is mounted to said tank holder (160), the position of said second engagement protrusion (132e) from said bottom surface is higher than the position of said first engagement protrusion (132d) (Figure 23);

- wherein said second engagement protrusion (132e) is placed, in the state of being engaged with said tank holder (160), at the inner side of said tank holder with respect to the outer peripheral surface of said peripheral wall of said tank holder (Figure 23);

-wherein a negative pressure generator (133) for holding liquid is provided within said container (130) (Figure 23);

-wherein a fiber member (135) made of fibrous material is provided on said supplying portion (132b) within said container (132) (Figure 23);
- wherein in the state where said container is mounted to said tank holder , said one side surface of said container abuts the inner surface of the peripheral wall of said tank holder opposing said one side surface, and when said container is removed from said tank holder, said one side surface of said container abuts the upper end of said peripheral wall of said tank holder and said container is rotated with the upper end being a supporting point (Figures 31a-31b);
- wherein when said container abuts said upper end of said peripheral wall of said tank holder to be rotated, its center of rotation is at a position which is equal to or less than 1/2 of the height of said container from said bottom surface (Figures 31a-31b);
- wherein an ink is loaded within said ink container (130); and
- a step of rotating said liquid tank with respect to said tank holder with the upper end of peripheral wall of said tank holder which surrounds said liquid tank mounted to said tank holder being a supporting point and removing said liquid tank (Figures 31a-31b).

Claims 1-4 and 16 are rejected under 35 USC 102 (e) as being anticipated by Steinmetz et al. (US Pat. 6,488,369).

Steinmetz et al. disclose in Figures 3-7 and 9a-9c a replaceable ink container inserting into a supply station comprising:

- a liquid discharge head (16);
- a tank mounting portion (14) to which a liquid tank (12) for accommodating liquid to be supplied to the liquid discharge head (16) is detachably mounted (Figure 4);
- a terminal (62, 64) for transmitting a recording signal to said liquid discharge head (16);
- a liquid supplying tube (36) which is placed on the mounting surface (68) of said mounting portion (14) on which said liquid tank (12) is mounted and supplies the liquid supplied from said liquid tank (12) to said liquid discharge head (16) (Figures 4 and 9a);

- a peripheral wall (unmarked walls) which is provided upright around said mounting surface (68) of said tank mounting portion (14) and forms a space for accommodating said liquid tank (12) (Figure 4);
- a first engagement portion (48) which is provided at one side wall of the peripheral wall and engaged with a first engagement protrusion (42) provided at a part of said liquid tank (12) (Figures 4-5, 7 and 9a);
- a second engagement portion (50) which is provided at the other side wall of said peripheral wall opposing said one side wall and engaged with a second engagement protrusion (54) provided at the other portion of said liquid tank (12), wherein the height of at least said one side wall of said peripheral wall is lower than the height of said liquid tank (12) to be mounted, and when said liquid tank is mounted to the tank mounting portion (14), at least one side surface of said peripheral wall abuts the side surface of said liquid tank (Figures 4-5, 7 and 9a-9c);
- wherein the height of the engagement surface of said second engagement portion (50) with which said liquid tank (12) engages from said mounting surface (68) is higher than that in the case of said first engagement portion (48) (Figure 9a-9c);
- wherein said tank mounting portion (14) is divided into two areas so that a liquid tank (12) accommodating a black ink is mounted to one area and a liquid tank (12) accommodating three color inks is loaded onto the other area, the area of said tank mounting portion on which the liquid tank accommodating a black ink is mounted is provided with a liquid supplying pipe (36) for black ink and the area of said tank mounting portion on which the liquid tank accommodating three color inks is mounted is provided with three liquid supplying tubes for the respective colors (Figures 3-5, 7 and 9a);
- wherein when said liquid tank (12) is removed from said tank mounting portion, said one side surface of said liquid tank abuts the upper end of said one side wall of said tank mounting portion (14) , said one side surface of said liquid tank is supported by said upper end, and a rotational operation is utilized (Figures 13a-14c);
- a container main body (12) for accommodating liquid;
- a lever portion (30) with a second engagement protrusion (54) which is engaged with the second engagement portion provided (50) at the other side wall of said peripheral wall opposing said one side wall and provided so as to be elastically displaced, wherein the protruding amount

of said first engagement protrusion from one side surface of said liquid tank is smaller than the distance from the bottom surface of said container main body to said first engagement protrusion (Figure (9a);

- wherein the lower surface side of said first engagement protrusion (42) facing the bottom surface side is formed in an inclined surface which is inclined upward from its proximal end toward its distal end (Figure 9a);
- wherein when said container (12) is removed from said tank holder (14) , said lever portion (30) is elastically displaced toward the container side (see arrows close by an element 30), so that the engagement state of said second engagement portion is released (Figure 13a);
- said lever portion (30) is provided with an operating portion which is operated at the time of removing said container (12) from said tank holder (14) (Figure 13a);
- wherein in the state where said container (12) is mounted to said tank holder (14), the position of said second engagement protrusion (54) from said bottom surface is higher than the position of said first engagement protrusion (42);
- wherein said second engagement protrusion (54) is placed, in the state of being engaged with said tank holder (14), at the inner side of said tank holder with respect to the outer peripheral surface of said peripheral wall of said tank holder;
- wherein in the state where said container (12) is mounted to said tank holder (14), said one side surface of said container abuts the inner surface of the peripheral wall of said tank holder opposing said one side surface, and when said container is removed from said tank holder, said one side surface of said container abuts the upper end of said peripheral wall of said tank holder and said container is rotated with the upper end being a supporting point (Figures 9a-9c and 13a-13c).
- wherein when said container abuts said upper end of said peripheral wall of said tank holder to be rotated, its center of rotation is at a position which is equal to or less than 1/2 of the height of said container from said bottom surface (Figures 13a-13c).
- wherein an ink is loaded within said ink container (12); and
- a step of rotating said liquid tank (12) with respect to said tank holder (14) with the upper end of peripheral wall of said tank holder (14) which surrounds said liquid tank mounted to said tank holder being a supporting point and removing said liquid tank (12) (Figures 13a-13c).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5-15 are rejected under 35 USC 103 (a) as being unpatentable over Steinmetz et al. (US Pat. 6,488,369) in view of Yamamoto et al. (US Pat. 6,234,618).

Steinmetz et al. disclose the basic features of the claimed invention were stated above but does not discloses an air communication portion for communicating the inside of said container main body with air; a negative pressure generator for holding liquid is provided within said container; and a fiber member made of fibrous material is provided on said supplying portion within said container.

Yamamoto et al. disclose in Figures 1-3 an ink tank comprising:

- an air communication portion (7) for communicating the inside of said container main body (2) with air;
- a negative pressure generator (F) for holding liquid is provided within said container (2);
- a fiber member made of fibrous material is provided on said supplying portion (8) within said container (2).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Yamamoto et al. into the Steinmetz et al. liquid supply system for the purpose of providing a fiber having capability of holding an ink.

*Citation of Pertinent Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These prior art references (US Pat. 5,250,957; US Pat. 5,815,183; US Pat. 6,863,376) cited in the PTO 892 form show an ink jet printer that is deemed to be relevant to the present invention. These references should be reviewed.

*CONCLUSION*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 8:00 A.M.to 6:00 P.M.. The fax number of this Group 2861 is (703) 872-9306.

ANH T.N. VO
PRIMARY EXAMINER

April 27, 2005